
Subject: Geant4 not working with mc generation

Posted by [Raghav Kunnawalkam](#) on Mon, 02 Jul 2012 14:57:39 GMT

[View Forum Message](#) <> [Reply to Message](#)

Hi All

I was doing mc simulations based on the examples given in fairroot and i have just noticed that i was using TGeant3 for all my stuff. I changed it to TGeant4 to see whats the difference since i was told the Geant4 has much better implementation of physics process for particles through a medium and it looks like my program is not able to see it. But i am very sure that my geant4 is properly defined.

here is the error message:

Loading Geant4 global libraries ...Our Macro

sh: /Users/raghav/fairsoft/bin/geant4-config: No such file or directory

Error in <TUnixSystem::GetFromPipe>: command "\$SIMPATH/bin/geant4-config --libs" returned 32512

Loading VGM libraries ...

Loading g4root library ...

dlopen error: dlopen(/Users/raghav/fairsoft/transport/geant4_vmc/lib/libg4root.so, 9): Symbol not found: __ZTI27G4VUserDetectorConstruction

Referenced from: /Users/raghav/fairsoft/transport/geant4_vmc/lib/libg4root.so

Expected in: flat namespace

in /Users/raghav/fairsoft/transport/geant4_vmc/lib/libg4root.so

Load Error: Failed to load Dynamic link library

/Users/raghav/fairsoft/transport/geant4_vmc/lib/libg4root.so

Warning: Return value of void g4libs_global() ignored

/Users/raghav/fairsoft/transport/macro/g4libs.C:135:

Error: Symbol TG4RunConfiguration is not defined in current scope

/Users/raghav/fairroot/example/gconfig/g4Config.C:29:

Error: Symbol TG4RunConfiguration is not defined in current scope

/Users/raghav/fairroot/example/gconfig/g4Config.C:29:

Error: type TG4RunConfiguration not defined

FILE:/Users/raghav/fairroot/example/gconfig/g4Config.C LINE:29

Error: Invalid type 'TG4RunConfiguration*' in declaration of 'runConfiguration'

/Users/raghav/fairroot/example/gconfig/g4Config.C:29:

*** Interpreter error recovered ***

SetCuts Macro: Setting Processes..

Error: illegal pointer to class object gMC 0x0 3002

/Users/raghav/fairroot/example/gconfig/SetCuts.C:23:

*** Interpreter error recovered ***

*** Break *** segmentation violation

I appreciate the help guys,

Cheers

Raghav

Subject: Re: Geant4 not working with mc generation
Posted by [Mohammad Al-Turany](#) on Tue, 03 Jul 2012 07:00:43 GMT
[View Forum Message](#) <> [Reply to Message](#)

Hi,

As you install the externals, did you choose to install in a separate directory? can you check the log files of installation to see if Geant4 was installed without errors? in the source directory of the externals can you type "svn info" and post the output here?

Mohammad

Subject: Re: Geant4 not working with mc generation
Posted by [Raghav Kunnawalkam](#) on Tue, 03 Jul 2012 13:52:56 GMT
[View Forum Message](#) <> [Reply to Message](#)

Hi Mohammad

UPDATE:: I got it working now, It was just a simple path mistake.
Thanks for your help.

When i installed fairsoft, i selected the option of installing them in their source directories itself.

Here is the log file from my last installation:

OpenGL found on this system

C++ compiler found in PATH

*** Compiling the external packages with the GCC compiler

*** Building the libraries with best optimization

The following parameters are set.

System : 64bit

C++ compiler : g++

C compiler : gcc

Fortran compiler : gfortran

CXXFLAGS : -O3

CFLAGS : -O3

Compiler : gcc

Debug : no

Optimization : yes

Platform : macosx

Architecture : macosx64

G4System : Darwin-g++

g4_data_files : yes

g4_get_data : no

Number of parallel

processes for build : 4

Found cmake version 2.8.7 which is newer than the
required version 2.8.2 in PATH

This version is okay. Don't install cmake as external package.

*** Package gtest is OK ***

*** Package glpk is OK ***

```

*** Package gsl is OK ***
*** Package Boost is OK ***
*** Package ApMon is OK ***
*** Package ml-gsoapclient is OK ***
*** Package Pythia6 is OK ***
*** Package pythia8 is OK ***
*** Package Clhep is OK ***
*** Package Geant4-Source is OK ***
*** Package Geant4-lib is OK ***
**** Installing the Geant4 data files ****
*** Package G4EMLOW already unpacked ***
*** Package G4NDL already unpacked ***
*** Package RadioactiveDecay already unpacked ***
*** Package PhotonEvaporation already unpacked ***
*** Package G4ABLA already unpacked ***
*** Package RealSurface already unpacked ***
*** Package G4NEUTRONXS already unpacked ***
*** Package G4PIL already unpacked ***
*** Compiling root .....
Copied rootconfig.sh .....
Configure Root .....
*** root compiled successfully ***
*** Package pluto is OK ***
*** Package Geant3 is OK ***
*** Package VGM is OK ***
*** Package Geant4_VMC is OK ***
*** End installation of external packages without Errors***

```

It says that geant4 is installed properly. I think that there is something wrong with my libraries path.

This is the output that you asked for, in the source directory fairsoft.

```
raghav:fairsoft raghav$ svn info
```

```
Path: .
```

```
URL: https://subversion.gsi.de/fairroot/fairsoft/trunk
```

```
Repository Root: https://subversion.gsi.de/fairroot
```

```
Repository UUID: 0381ead4-6506-0410-b988-94b70fbc4730
```

```
Revision: 15305
```

```
Node Kind: directory
```

```
Schedule: normal
```

```
Last Changed Author: uhlig
```

```
Last Changed Rev: 15284
```

```
Last Changed Date: 2012-04-16 08:13:00 -0400 (Mon, 16 Apr 2012)
```

Cheers

Raghav

UPDATE::

I played around with the libraries and copied the geant4-config file to the spot that it wanted and now it looks like it can see geant4 or atleast most of it.

I am having some problems regarding specific files, namely the data file for low energy EM processes. I tried getting the new data file and unpacked it and placed it in the place of the old one (even though i think that they are both the same), i am still getting the same issues.

```
----- input/output -----  
first input: none  
second input: none  
output:  
OBJ: FairParRootFile /Users/raghav/fairroot/example/EIC/macros/data/params_test_A_C.root  
: 0 at: 0x7ff5ecb49a70  
Root file I/O /Users/raghav/fairroot/example/EIC/macros/data/params_test_A_C.root is open  
detector I/Os: FairGenericParlo
```

```
----- EEEE ----- G4Exception-START ----- EEEE -----  
*** G4Exception : em0003  
    issued by : G4SeltzerBergerModel::ReadData()  
Bremsstrahlung data file </brem_SB/br1> is not opened!  
G4LEDATA version should be G4EMLOW6.23 or later.  
  
*** Fatal Exception *** core dump ***  
----- EEEE ----- G4Exception-END ----- EEEE -----
```

Subject: Re: Geant4 not working with mc generation
Posted by [Mohammad Al-Turany](#) on Wed, 04 Jul 2012 07:43:33 GMT
[View Forum Message](#) <> [Reply to Message](#)

Hallo Raghav,

Sorry for that, this is a bug which we corrected in the release and forget to merge it back to the trunk, please go to the directory:

```
/Users/raghav/fairsoft/transport/macro/
```

and call "svn update" there.

This should solve your problem!

regards,

Mohammad
